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ABSTRACT

This is a final evaluation report for three Title VII programs conducted in the Seattle, Washington, school district in 1977. The programs reviewed include: (1) Basic Skills Impact Model (BSIM), an effort to provide basic skills remediation to underachieving students; (2) Minimum Competencies Assurance Program (MinCAP), a remedial program designed to provide secondary students with competencies in survival skills; and (3) Alpha/Mentor Projects, programs for gifted students. A description and list of program objectives is provided for each of these projects. In addition, the evaluation procedures are outlined, and data analysis, data sources, and population and sampling are described. Finally, each program evaluation contains an assessment of the extent to which the objectives have been met. A general discussion of all three programs concludes the report. (APM)

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ESAA TITLE VII
FINAL EVALUATION REPORT

REPORT NO. 77-14
SEPTEMBER 1977

GERALDINE T. CROCKETT

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ABSTRACT

Report No. 77-14, ESAA Title VII Final Evaluation Report, presents the results of the evaluation of three ESAA Title VII programs: Basic Skills Impact Model (BSIM) which provided basic skills remediation to students in four elementary schools; Minimum competencies Assurance Program (MinCAP) which provided basic skills remediation to students in seven junior high and high schools; and Alpha and Mentor projects which provided special instruction for gifted and talented students in nine elementary and secondary schools.

The following major results and conclusions are presented in this report:

- BSIM. A large number of target students showed positive gains on diagnostic and achievement tests. Ninety-two percent showed positive gains (68% were statistically significant) on diagnostic tests and eighty-four percent showed positive gains (72% were statistically significant) on achievement tests. Students who were in the program for the largest amount of time showed the most improvement. Because of the short period of operation, the program failed to meet its student achievement objective. However, students exhibited good achievement gains during the period of program operation and there is every indication that a full year program would have exceeded its objectives.

  Fifty-four percent of the parents of target students participated in the Home Study Component and devoted an average of 2.8 hours a week working with their children on prescribed activities. Neither objective having to do with parent contributions was met. It is recommended that the quantity of parent contributions in these objectives be modified to reflect a more realistic amount.

- MinCAP. The MinCAP program provided service to 798 students. Many of these students received service in more than one subject area. Although the number of students served was two short from the stated criteria, the objective was essentially met.

  The student achievement objective was not met since only forty-four percent of the students tested at the end of the year passed the Minimum Competencies General Screening Test (GST) subtest in their deficit skills areas. It is not clear why MinCAP target students did not exhibit better achievement. Because there were not enough GST score data to adequately evaluate the effect of program participation on student achievement, it is recommended that all MinCAP students be administered the GST on a pre- and post-test basis.

- Alpha and Mentor. A fair evaluation of program effect on student achievement in the Alpha Project was impossible because of the short period of program operation. On the average, Alpha target students maintained normal or higher growth than was expected on all MAT subtests and score much higher than expected on the MAT Mathematics Concepts subtest. Although the Alpha academic achievement objective was not met, Alpha target students exhibited good achievement gains. Similarly, although the Mentor academic achievement objective was not met, Mentor student achievement was quite good. It is recommended that the Alpha student achievement objective be modified to reflect a more realistic assessment of student gains, and that the criterion level, "each student," in the Mentor student achievement objectives be modified to a realistic proportion of students.

  Due to the short interval between the first and second administration of the Personality Inventory (PI), a fair evaluation of program effect on student attitudes was not possible. Of the Alpha target students who scored below the mean level on the initial administration of the PI, eighty percent showed positive gains (27% exhibited statistically significant gains). Although the student attitude objective was not met, student gains on the PI were quite good.

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INTRODUCTION

Background

Title VII of the Emergency School Aid Act (ESAA) has provided federal funds for desegregation or for the alleviation of the adverse effects of segregation in local school districts. The purposes of ESAA Title VII funding, stated in the Rules and Regulations, are: (1) to meet "the special needs incident to the elimination of minority group segregation and discrimination among students and faculty in elementary and secondary schools"; (2) to eliminate, reduce, or prevent "minority group isolation in elementary and secondary schools with substantial proportions of minority group students" (over 50% minority students); and (3) to aid "school children in overcoming the educational disadvantages of minority group isolation."

The Seattle School District has applied for ESAA Title VII funds for programs in minority isolated schools for the past four years. The initial programs, funded for the 1973-74 school year, included: (1) Project Bridge, to acquaint junior high/middle school students with Garfield High School, a minority isolated school; (2) Paired Schools, to acquaint students with minority isolated schools at all age levels; (3) Basic Skills, to diagnose and remedy students' skills deficits in minority impacted elementary schools; (4) Asian American Cultural Heritage Program, to foster pride and respect within and among various ethnic groups; and (5) Evaluation, a separate component in the District Evaluation Office, to evaluate the effectiveness of all Title VII programs. During the 1974-75 school year, all programs were continued except the Paired Schools Program. The Asian American Cultural Heritage Program expanded its scope to become the Multi-Ethnic Cultural Heritage Program. In 1975-76, the District submitted a proposal which included all programs except Project Bridge. Evaluation activities were written into other program components. Additional funds were requested for the Alpha gifted program. Funds were deferred during the 1975-76 school year for compliance reasons. Only the Ethnic Cultural Heritage Program was continued with other funds.

In 1976, the District's 1976-77 proposal was written and the present programs funded. Included were the following: (1) Basic Skills Impact Model (BSIM), a modification of the original Basic Skills Program; (2) Minimum Competencies Assurance Program (MinCAP), a new remedial program to assure all secondary students basic competencies in survival skills; (3) Alpha/Mentor Projects for gifted students, an expansion of Seattle's gifted programs; and (4) Ethnic Cultural Heritage Program, an expansion of the previously funded Multi-Ethnic Cultural Heritage Program.

The Basic Skills Impact Model (BSIM) and the Minimum Competencies Assurance Program (MinCAP) included funds for an evaluation of the program objectives, which was completed by the Office of Instructional Program Evaluation. In

addition, this Office was requested to evaluate the Alpha and Mentor gifted programs. This report presents the results of evaluation projects for these three programs.

Overview of the Report

Each of the three evaluation projects is presented individually. The format is the same for each program and includes a description of the program, followed by a list of program objectives. Following these sections is a procedures section which includes a description of data analysis, data sources, and the population and sampling. The next section assesses to what extent the program objectives have been met. The final section includes conclusions drawn from the information in the report. General conclusions for the three projects are presented at the end of the report, followed by an appendix.

BASIC SKILLS IMPACT MODEL

Background Information

The Title VII Basic Skills Impact Model (BSIM) has been in operation since the 1973-74 school year (with the exception of the 1975-76 school year) as part of the District's effort to provide basic skills remediation to underachieving elementary school students. BSIM complemented other compensatory education programs within the District (ESEA Title I and URRD Projects) with a remedial program in reading and mathematics for underachieving students in the following minority isolated schools:

- Leschi
- Brighton
- Colman
- Columbia

Final funding for the BSIM program was not received until December of 1976, well after the school year had begun. The BSIM program began hiring staff January 10, 1977. Training was then provided to program staff to familiarize them with the BSIM program and Title VII Guidelines. The identification of target students began January 10 and was completed by February 14. Actual classroom instruction in all but one school (Leschi) began by the middle of February and continued until the end of the school year. Because of space limitations, Leschi was not able to provide a full BSIM program.

Initially, students who scored in the lower three stanines on the Total Reading and Total Mathematics Metropolitan Achievement Tests (MAT) were identified as target students. In addition, students who were not tested on the MAT but were recommended by teachers as needing service were also identified as target students. All identified students were screened with diagnostic, criterion-referenced tests. Students who scored below minimum criteria became the target population.

Colman and Leschi provided instruction in both mathematics and reading. Columbia and Brighton provided instruction in mathematics, complementing the existing remedial reading assistance available through Title I.

BSIM staff included: (1) one supervising teacher to coordinate individual building programs, (2) eight diagnostic/prescriptive teachers (two in each school) to provide instruction in mathematics and/or reading, and (3) eight Home School Curriculum Assistants (two at each school) to provide assistance in homes as well as classrooms of target students.

Students who participated in the program left their regular classroom each day for twenty-five minutes to attend the BSIM class located in a separate room.

The following activities were provided through the BSIM program:

- Diagnostic Testing, to determine target students' levels of competence in their deficit skills areas was completed during the first month of the program.

- Small Group Remediation in Mathematics or Reading was provided after diagnostic testing by the BSIM teaching staff and the Home Study Assistant in individual or small group settings for twenty-five minutes a day, five days a week, in Basic Skills classrooms.

- Cross-Age and Peer Group Tutoring began in March 1977 at three project schools: Brighton, Colman, and Columbia. Leschi was not able to implement a cross-age or peer group tutoring program. Program activities included selection and training of student tutors, providing materials for tutoring, scheduling work sessions, and holding weekly meetings with the tutors to help them understand the progress of their work and to assist in planning for the following week. Cross-age tutoring was implemented at Brighton and Columbia in varied forms. Brighton used approximately ten cross-age tutors for two days a week, fifteen minutes per day. At Columbia, third and sixth grade tutors assisted younger students for one-half hour once a week. Colman had the most extensive tutoring program. Peer tutors, selected by regular classroom teachers, provided individual tutoring services in the Basic Skills classroom for five minutes daily. Cross-age tutors at Colman were students from Garfield and Franklin High Schools who provided service to target students approximately two hours a week.

- Home Study Assistants provided a bridge between the school and the homes of target students. The Home School Curriculum Assistant (HSCA) made at least one contact with the home of each target student and provided parents with learning materials for use in the home and training in tutorial methods.

- In-Service Training for Regular Teachers began in March, 1977 in three project schools: Brighton, Colman, and Columbia. Leschi was not able to implement a regular teacher in-service training program. Title VII staff conducted these training sessions for selected regular school staff members at each school. The in-service training familiarized the classroom teachers with the BSIM program and provided the teachers with training in diagnostic/prescriptive materials and teaching techniques.

Students participated in the BSIM program from two to twenty-one weeks. The average participation was fourteen weeks. The majority of target students, in the teacher's judgment, attended class regularly and only thirty-two students (11%) were excessively absent. According to teachers, eighty-six percent of the students (234) attended the BSIM class for the full twenty-five minutes each day; eleven percent of the students (29) usually attended class fifteen to twenty minutes a day; and only three percent of the students (8) usually attended class for less than fifteen minutes.

Nineteen percent (59) of the target students received cross-age or peer group tutoring. Of these, fifty-nine percent were enrolled at Colman.

Objectives of the Basic Skills Impact Model Program

1. "To insure that eighty percent of the target student population will attain significant growth (percentile improvement) in the specific basic skills deficit area that identifies the student as needing service."

2. "To increase the number of hours of professional remedial services received by each severely underachieving student to fifty percent more than the average concentration of services to ESEA Title I - eligible students."

3. "To actively engage the families of at least eighty academically disabled students (a minimum of twenty at each school) in the process of their child's education, so that the parents spend at least five hours per week working with their child on his/her educational prescription materials."

Procedure

Data Analysis

Data relative to student participation in the BSIM program were collected from class lists and entered on a computer file. To describe population characteristics, demographic information (ethnic background, sex, and grade) from the Student Master File was added to each student's record from District computer records and tabulated. To describe service provided to target students, data from BSIM program records were collected and added to each student's computer file. The BSIM program records contained student progress, number of weeks students attended the program, school attendance information, number of weeks parents participated in the Home Study Component, and the number of hours parents worked with their children at home.

For Objective 2, the amount of service Title I students received was compiled from Title I program records maintained by the Title I evaluation staff.

Overall gains in academic achievement of students who participated in the BSIM program were calculated and tabulated from pre- and post-diagnostic (Keymath and Information Reading Inventory) and achievement (Metropolitan Achievement Test) test scores. Diagnostic test scores, collected from program records, and Metropolitan Achievement Test scores, collected from the District's Test History file, were added to each student's computer file. Gain scores were computed by subtracting each student's pretest score from their posttest score. The statistical significance of gains was calculated by computing a formula which utilized the reliability coefficient of each test.

All analysis of the data was conducted on the computer through the use of the Statistical Package for the Social Sciences (SPSS).

TABLE 1

1976-77 SCHOOL YEAR GRADE AND SUBJECT AREA DISTRIBUTION OF BASIC SKILLS IMPACT MODEL TARGET STUDENTS BY SCHOOL (JUNE 1977)

School	Grade*						Subject Area			Total
	1	2	3	4	5	6	Reading Instruction Only	Mathematics Instruction Only	Mathematics and Reading Instruction	
righton	18	11	12	16	11	10	0	87	0	87
olman	5	17	4	18	11	19	34	26	19	79
olumbia	15	13	12	13	15	11	0	83	0	83
eschi	8	16	11	18	0	0	29	22	5	56
tudents Who ransferred to ther Schools uring the Year**	1	3	0	5	1	0				
otal	47	60	39	70	38	40	63	218	24	305
ercent	16	20	13	24	13	14	21	71	8	100

*Grade data were missing for 11 target students.

*This column is not applicable for Subject Area. Data for these students were included in the target schools where they received remedial help.

Description of Data Sources

The following measurement instruments and records were used in the collection of data contained in this report:

1. Fall 1976 and Spring 1977 Metropolitan Achievement Test scores for Total Reading and Total Mathematics were collected for target students in grades two, four, six, and eight. The tests were administered by the Group Testing Office.

2. The Keymath test was administered to target students by the BSIM teacher in February 1977 and again in May 1977.

3. The Informal Reading Inventory (IRI), a locally validated and normed test which incorporated the format of the Spache Reading Diagnostic Scales and the Boder Reading Test, was administered to target students by the BSIM teacher in February 1977 and in May 1977.

4. The Student Master File, maintained by the Seattle School District, was used to collect demographic information (sex, ethnic background, and grade) for each target student.

5. The Student Information Form (SIF) was maintained by the BSIM teaching staff. It included types of service students received, student progress and non-academic factors affecting student achievement (see Appendix, p. 52).

6. The Student Test and Attendance Information Form was also maintained by the BSIM teaching staff. It summarized the amount of time students participated in the BSIM program and diagnostic test scores from February 1977 to May 1977 (see Appendix, p. 53).

7. The Parent Home Study Information Form was maintained by the Home Study Assistants and included the number of weeks each parent participated in the Home Study Component and the number of hours each parent worked with their child or at home on prescribed activities (see Appendix, p. 54).

8. Class lists, part of a computer system to monitor program participation for all students, were collected in March and updated in May.

Population and Sampling

The student population consisted of all students receiving services from the BSIM program from its beginning in February 1977 to June 1977. Target students consisted of students who scored in the lower three stanines on the Spring 1976 or Fall 1976 MAT in Total Reading or Total Mathematics subtests or who were recommended by teachers as being deficient in reading or mathematics skills.

A total of three hundred and five students in grades one through six in four elementary schools were served in BSIM classes (see Table 1). Twenty-one

percent (63) of the target students received reading instruction only, seventy-two percent (218) received mathematics instruction only, and eight percent (24) were instructed in both reading and mathematics.

An ethnic and sex breakdown of target students is presented in Table 2. Ninety-one percent of the target students were minority, compared with an average of eighty-eight percent minority students enrolled in target schools. Fifty-five percent of the target students were male.

The sample for evaluation of Objective 1 consisted of all students who received remediation in their deficit skills areas for whom complete test score data were available. There were approximately 58 (67%) complete pre- and post-reading achievement test scores, 158 (65%) complete pre- and post-mathematics achievement test scores, 67 (77%) complete pre- and post-reading diagnostic test scores, and 196 (81%) complete pre- and post-mathematics diagnostic test scores.

The population of study for the Home Study Component, Objective 3, included the parents of students who actively worked at home with their children on prescribed activities. Data were available for approximately 165 parents.

Limitations

1. Due to the limited amount of time students received remediation, it was not possible to adequately assess program effect on student achievement as measured by achievement test score data.

2. Statistically significant gains on diagnostic tests (Keymath and IRI) were unrealistic to expect during the short interval (three months) between pre- and post-testing.

3. The hours that parents worked with their children at home were reported to the Home Study Assistant by the parents. Since parents did not keep precise records of the number of hours they spent, these data are only approximate.

TABLE 2

1976-77 SCHOOL YEAR ETHNIC AND SEX DISTRIBUTION OF
BASIC SKILLS IMPACT MODEL TARGET STUDENTS (JUNE 1977)

School	Ethnic Group											Sex	
	White	Samoan	Viet-namese	Japanese	Filipino	Chinese	American Indian	Hispanic Asian	Hispanic White	Hispanic Black	Black	Male	Female
Brighton	4	7	1	1	3	2	1	1	0	9	49	36	42
Colman	2	0	0	0	0	0	0	0	1	0	72	46	29
Columbia	18	8	0	0	2	0	1	0	0	6	44	41	38
Leschi	0	0	0	0	0	0	1	0	0	2	50	29	24
Students Who Transferred to Other Schools During the Year	3	0	0	0	1	0	0	0	0	1	11	13	3
Total*	27	15	1	1	6	2	3	1	1	18	226	165	136
Percent	9.0	5.0	0.3	0.3	2.0	0.8	1.0	0.3	0.3	6.0	75.0	55.0	45.0

*Sex and ethnic data were not available for four target students.

Assessment of Objectives

Objective 1: "To insure that 80 percent of the target student population will attain significant growth (percentile improvement) in the specific basic skills deficit area that identifies the student as needing service."

Assessment

This objective was assessed by an analysis of student gains on the Informal Reading Inventory, Keymath, MAT Total Reading, and Total Mathematics subtests. The results are displayed in Table 3.

Of students who received remedial help in reading, seventy-eight percent showed positive gains on the Oral Reading subtest, eighty-two percent showed positive gains on the Reading Comprehension subtest, and sixty percent showed positive gains on the Word Knowledge subtest of the IRI. Gains were statistically significant for seventy-three percent of the students on the Oral Reading, seventy-two percent on the Reading Comprehension, and fifty-two percent on the Word Knowledge subtest of the IRI. On the average, seventy-three percent of the students who received remedial help in reading showed positive gains and sixty-six percent showed statistically significant gains on the IRI. Gains on the Total Reading subtest of the MAT for students who received remediation in reading were positive for sixty-seven percent of the students, and were statistically significant for forty-eight percent of the students.

For students who received remediation in mathematics, ninety-eight percent showed positive gains and seventy percent exhibited statistically significant gains on the Keymath test. Gains on the Total Mathematics subtest of the MAT were positive for ninety percent of the students and were statistically significant for eighty percent of the students.

Because of the limited amount of time that students participated in the BSIM program, a separate analysis was completed for those students who were in the program at least five months. All of these students showed positive gains and eighty-six percent showed statistically significant gains on the Keymath. Students who received remedial help in reading were not involved long enough in the BSIM program for a comparable analysis.

The objective was met for students who received remediation in mathematics since eighty percent of these students showed statistically significant gains on the MAT Total Mathematics subtest. The objective was not met for students who received remediation in reading. An adequate assessment of the objective was not possible since the program was in operation for less than half of the school year. From the data that were available for students who were in the program for at least five months, the percent of students with statistically significant gains on the Keymath increased from seventy percent to eighty-six percent. It is almost certain that the overall objective would have been met had the program been in operation for the entire school year.

TABLE 3

BSIM TARGET STUDENT PERFORMANCE ON DIAGNOSTIC AND MAT TESTS
IN STUDENTS' DEFICIT SKILL AREAS (JUNE 1977)

Tests	Student Performance				
	Total Number of Students Tested	Students Who Showed Positive Gains		Students Who Showed Statistically Significant Gains	
		N	%	N	%
IRI Oral Reading	67	52	78	49	73
IRI Reading Comprehension	67	55	82	48	72
IRI Word Knowledge	67	40	60	35	52
MAT Total Reading	58	39	67	28	48
Kermath	196	192	98	138	70
MAT Total Mathematics	158	142	90	127	80

Objective 2: "To increase the number of hours of professional remedial services received by each severely underachieving student to 50 percent more than the average concentration of services to ESEA Title I - eligible students."

Assessment

The term "Title I - eligible students" was defined as those students who received Title I services during the 1976-77 school year. To evaluate this objective, the average amounts of service received by Title VII students and Title I students were compared. The average amount of remedial service Title I students received was 2.5 hours a week. The criterion (50% more service in Title VII) was 3.75 hours a week.

All Title VII students received 2.1 hours of regular classroom instruction each week. Fifty-four percent (165) of the students who were involved in the Home Study Component received on the average, an additional 2.8 hours of instruction each week at home, thus receiving a total of 4.9 hours of remedial service a week. Overall, the average amount of remedial service to Title VII target students was 3.6 hours a week.

This objective was closely approached but not met. Although the students whose parents were involved in the Home Study Component received over fifty percent more remedial service than Title I students, the objective was not met.

Objective 3: "To actively engage the families of at least 80 academically disabled students (a minimum of 20 at each school) in the process of their child's education, so that the parents spend at least five hours per week working with their child on his/her educational prescription materials."

Assessment

A total of fifty-four percent (165) of the parents of target students participated in the Home Study Component. Each target school had a minimum of twenty or more families involved in the program. On the average, parents were involved in the Home Study program for approximately three months and devoted an average of 2.8 hours a week working with their children on prescribed activities. Although more than eighty families (20 at each school) were engaged in the Home Study Component, the objective was not met since most parents reported spending less than five hours per week working with their children on educational prescriptive materials. Sixteen parents (11 at Colman and 5 at Brighton) averaged five or more hours per week.

Conclusions

Students in the BSIM exhibited good academic achievement during the school year. For students who received instruction in mathematics, eighty percent showed statistically significant gains on the MAT Total Mathematics subtest and eighty-six percent of the students who were in the program for at least five months achieved significant gains on the Keymath test. For students who received instruction in reading, seventy-three percent showed positive gains and sixty-six percent showed statistically significant gains on the Informal Reading Inventory. The four to five month period of BSIM program operation was inadequate for an accurate assessment of program effect on student achievement. Statistically significant gains on diagnostic tests were difficult to achieve because of the short interval between pre- and post-testing. Similarly, MAT gains could not be completely attributed to the BSIM program since students spent a large proportion of the school year without the benefits of the program. However, the number of students who achieved significant growth on achievement and diagnostic tests do suggest that the BSIM program had a significant effect on student achievement.

The BSIM program provided approximately forty-four percent more remedial service than did the Title I program. Since the two programs provided similar classroom instruction time, the additional service was provided by the 165 parents who were involved in the Home Study Component. To expect a larger number of parents to be involved in the Home Study Component is unrealistic, since fifty-four percent of the parents did participate. Similarly, it is unrealistic to expect the parents who were involved in the Home Study Component to spend a minimum of five hours a week working with their children at home on prescribed activities. It is recommended that the criteria, fifty percent more remedial service in Objective 2, be lowered to reflect a more realistic amount of parent participation. It is also recommended that the number of hours parents are expected to work at home with their children be lowered.

MINIMUM COMPETENCIES ASSURANCE PROGRAM

Background Information

During the 1973-74 school year, the District established a Minimum Competencies Program to assure that all students attain minimally acceptable skill levels in English, reading, and mathematics. A General Screening Test (GST) was developed in the summer of 1974 to measure competence in the application of sixteen basic survival skills. The District also developed materials for student diagnosis and intervention. An evaluation of the GST to assess the reliability and validity was conducted during the 1975-76 school year. The Title VII Minimum Competencies Assurance Program (MinCAP) was part of this total District effort.

Secondary schools were chosen as the target for the MinCAP program because secondary school students are closest to legal and social independence and there are no remedial programs at this level. The following target schools for the MinCAP program were selected on the basis of their high rates of failure to pass the Minimum Competencies General Screening Test:

- Cleveland High School (Grade 10)
- Franklin High School (Grade 10)
- Garfield High School (Grades 9 through 12)
- Immaculate Conception High School (Non-public, Grade 9)
- Mercer Junior High School (Grade 9)
- Sharples Junior High School (Grade 8)
- South Shore Middle School (Grade 8)

Each of the target schools, except Garfield, concentrated its efforts at one grade level, as indicated.

The MinCAP program began October 1976. Staff hiring for the MinCAP program began October 1, 1976 and continued until November 15, 1976. Additional teaching staff were also hired in February 1977.

The General Screening Test was administered in November 1976 to students in selected grade levels who did not have recent General Screening Test scores. Students found deficient in mathematics, reading or English were identified as target students and were eligible to receive remediation in their deficit skills areas beginning November 15, 1976. Locally developed diagnostic materials and intervention strategies were made available to all schools, although the MinCAP staff had the option to use other materials they found

useful. All mathematics teachers chose to use the Individualized Computational Skills Program (published by Houghton-Mifflin). A wide variety of English and reading materials were used.

Target students were released from the MinCAP program when they attained minimum competency in their deficit skills areas as assessed by a passing score on the GST or on teacher recommendation. Since participation was voluntary, target students could also elect to discontinue receiving service in the MinCAP program.

Each of the seven schools involved in the program developed a different organizational plan for implementing instruction. The differences were planned in order to determine which type of organization brought about the greatest student achievement gains. The different models were as follows:

- Model I was implemented at Franklin High School for students in the 10th grade. The staff consisted of one teacher and three instructional assistants. During the first semester, the staff attempted to work as "helping teachers" directly in the target students' language arts and mathematics classes and to have regular classroom teachers refer students to them for tutoring sessions. This structure was found to be difficult and was changed. Beginning the second semester, students were assigned to MinCAP classes during a free period. One instructional assistant staffed the Mathematics Center and two instructional assistants staffed the Reading and English Center. The teacher's time was divided between the two centers. Students were assigned to the MinCAP class for one hour a day, five days a week. When students graduated from the MinCAP class they gained a free period and received academic credit for the MinCAP class.

- Model II was implemented at Cleveland High School and likewise concentrated on 10th grade students. The MinCAP staff consisted of two teachers. During the first two trimesters, target students were enrolled in regular classes and were released to attend a MinCAP class. During the third trimester, the program was modified to directly assign most target students to the MinCAP class because of problems that developed in releasing students from their regular classes. Some students continued to be released from regular mathematics classes to attend the MinCAP mathematics class. Students attended the MinCAP class one hour a day, five days a week.

- Garfield High School implemented Model III. One teacher and two instructional assistants, along with two District-funded staff served 9th, 10th, 11th and 12th grade target students in a MinCAP Basic Skills Center. A third instructional assistant was hired during the second semester. All students eligible for MinCAP instruction were notified of the program but participation was not mandatory. Ninth grade students were the original target population. However, during the course of the first semester it was determined that there were enough resources to provide service to students in additional grades. Although students in all grades were encouraged to participate, the MinCAP staff made special efforts to

recruit eligible 9th grade students who were given top priority in registering for the MinCAP class. Forty-three 9th grade students identified as target students elected to enroll in regular classes and the MinCAP staff provided training and materials to the regular teachers for these students. These students were not counted in the target population.

- Model IV was implemented at Immaculate Conception High School, the non-public school participant in the MinCAP program. One teacher served thirteen target students. Twelve of these students received instruction in a MinCAP mathematics class for one hour a day, five days a week. In addition to providing special assistance to the thirteen target students at Immaculate, the MinCAP teacher served 9th and 10th grade students recommended by regular classroom teachers as needing special assistance in reading and writing in basic skills classes, in which the one MinCAP English and reading target student also received instruction.

- Mercer Junior High School implemented Model V and concentrated their efforts on students in the 9th grade. The MinCAP staff consisted of one teacher and two instructional assistants. The original model, in operation until February 1977, provided staff to serve in regular basic skills classrooms as helping teachers. During the course of the first semester, it was determined that this particular model was not entirely workable, particularly for target English and reading students. The model was modified to provide small tutoring sessions outside of the classroom in addition to the assistance provided in the regular classrooms. Target students who attended the small group tutoring sessions were released from their regular language arts class to the MinCAP class for an entire one hour period. The teacher was assigned to the tutoring sessions full time and the instructional assistants were assigned part time. The majority of mathematics assistance continued to be provided solely in the students' regular mathematics class by the instructional assistants.

- Model VI was implemented at Sharples Junior High School where efforts were concentrated on students in the 8th grade. The staff consisted of two teachers who taught in a Basic Skills Center. Target students were released during alternate quarters from the school's regular program and assigned to the Basic Skills Center, one hour a day, five days a week.

- Model VII was implemented at South Shore Middle School where efforts were also concentrated on 8th grade students. The staff consisted of two teachers. An instructional assistant was hired for the second semester. Students were enrolled in regular English and mathematics classes and released for one-half of the daily period to receive MinCAP assistance in a Basic Skills Center.

Program Objectives

1. "To provide special individualized learning assistance to at least 800 students in selected grade levels in the six targeted secondary schools who lack the minimal skill competencies which are measured on the General Screening Test."

2. "To enable at least seventy-five percent (75%) of the target students to attain minimum competency or better in one or more of the defined skills areas in which they have been found deficient."

3. "To determine which of seven methods for implementing the MinCAP materials is the most effective in improving target students skill levels."

4. "To train Title VII Project staff members and all regular school staff as selected by the principal in the use of criterion-referenced diagnostic material and criterion-referenced intervention strategies designed to determine individual student needs, as developed and field tested by the Seattle Public Schools Basic Skills Department."

Procedures

Description of Data Analysis

Student participation data were collected from class lists entered on a computer file and tabulated to describe the number of students who received remediation in mathematics, reading, and English. The amount of service provided to target students was described by the tabulation of student attendance data collected at the end of the school year from MinCAP program records which were added to each student's computer record. To describe population characteristics, demographic information (grade, sex, ethnic background) from the Student Master File, maintained by the District, was added to each student's computer record and tabulated.

To describe student achievement at the end of the school year, Spring 1977 Minimum Competencies General Screening Test (GST) scores added to each student's record from computer files maintained by the District, were tabulated for each subtest for which students received remediation. Student gains, as assessed by GST pre- and post-test scores in each school were analyzed and compared to those target students in other schools, adjusting for initial variation in students' pretest scores.

Information concerning in-service training of project staff and regular school staff was obtained and summarized from the Supervising Teacher's records.

All analyses of the data were conducted on the computer through the use of the Statistical Package for the Social Sciences (SPSS).

Description of Data Sources

The following measurement instruments and records were used in the collection of data contained in this report:

1. Spring 1976, Fall 1976, and Spring 1977 Minimum Competencies General Screening Test scores were collected for target students. These tests were administered by the MinCAP staff. The GST consists of three subtests: reading, mathematics, and English. The latter includes two sections: (1) Dictation and (2) Listening-Writing. To pass the English subtest, a student had to pass either the Dictation or the Listening-Writing section. A score of sixteen or more was a passing score on the reading subtest and a score of ten or more was a passing score on the mathematics subtest.

2. The Student Information List (SIL) was maintained by the MinCAP staff. The SIL included information concerning student attendance in MinCAP class and non-academic factors affecting student achievement (see Appendix, p. 55).

3. The Student Master File was maintained by the Seattle School District and contains demographic information for each target student.

4. Class lists, part of a computer program to monitor program participation for all students, were compiled in March and updated in May.

Population and Sampling

The population of this study consisted of 811 students in grades eight through twelve in one non-public and six public secondary schools who were below designated competency levels in reading, English, and mathematics and who participated in the MinCAP program.

The ethnic distribution and sex of target students is presented in Table 4. Eighty percent of the target students were minority, compared with an average of seventy-five percent minority students enrolled in target schools. There were slightly more males (55%) than females in the MinCAP program.

Target students attended MinCAP classes from one to forty-seven weeks; the average length of student participation was fifteen weeks. On the average, students attended the program five days a week and received approximately four hours of instruction a week. Most (76%) of the target students attended the MinCAP class regularly.

For objectives pertaining to General Screening Test scores, the sample consisted of all students for whom pre- and post-test score data were available in the students' deficit skills areas. Approximately sixty-seven percent of the students who received remediation in their deficit skills areas had posttest scores, and only thirty-five percent of the students had complete pre- and post-test scores. On the GST reading subtest, a total of 95 pre- and 116 post-test scores for students who received remediation in reading were available, but only 66 (36%) complete pre- and post-test scores were available. On the GST mathematics subtest, 409 pre- and 447 post-test scores were available for students who received remediation in mathematics, but only 320 (51%) students had complete pre- and post-test scores for analysis. For students who received service in English, twenty-one pre-, 185 post-, and seven complete pre- and post-test scores were available for analysis.

Limitations

1. An adequate assessment of Objective 2 was not possible due to an insufficient number of students with GST posttest scores, since only sixty-seven percent of the target students had GST posttest scores.

2. Due to an inadequate number of students with both GST pre- and post-test scores, particularly in reading, a meaningful comparison of the different instructional methods was not possible.

3. Immaculate Conception target student test scores could not be compared with public school target student test scores because the District does not maintain identification data on these students.

TABLE 4

1976-77 SCHOOL YEAR ETHNIC AND SEX DISTRIBUTION OF MINCAP TARGET STUDENTS (JUNE 1977)

School	Ethnic Group																Sex	
	White	Southeast Asian	Other Asian	Samoan	Vietnamese	Korean	Japanese	American Indian	Alaskan Native	Pacific Islander	Filipino	Hispanic White	Hispanic Black	Chinese	Black	Hispanic Indian	Male	Female
Cleveland	28	0	0	1	0	0	2	1	0	0	2	0	3	3	36	0	45	31
Franklin	13	1	1	1	3	0	4	0	0	0	13	2	3	7	74	3	71	54
Garfield	4	0	1	0	0	0	0	1	0	0	0	1	1	0	103	0	67	44
Mercer	38	0	1	4	0	0	4	0	1	2	8	1	2	15	92	2	86	84
Sharples	19	0	0	5	0	0	3	5	0	0	5	1	13	3	59	3	68	48
South Shore	41	0	0	2	0	1	6	1	0	1	6	0	4	0	56	2	51	69
Students Who Transferred to Other Schools During the Year	16	0	0	1	0	0	1	2	0	0	3	0	2	0	54	1	47	33
Total	159	1	3	14	3	1	20	10	1	3	37	5	28	28	474	11	435	363
Percent	19.9	0.1	0.4	1.8	0.4	0.1	2.5	1.3	0.1	0.4	4.6	0.6	3.5	3.5	59.4	1.4	54.5	45.5

Assessment of Objectives

Objective 1: "To provide special individualized learning assistance to at least 800 students in selected grade levels in the six target secondary schools who lack minimal skill competencies which are measured on the General Screening Test."

Assessment

Student participation in the MinCAP program was as follows: 798 individual target public school students received service and 13 individual non-public school target students received service (see Table 5). Although the number of individual target students was two short of the specified number, the objective was essentially met. The objective was exceeded when students who were served in more than one mode (multiple subject areas) were double counted.

TABLE 5

1976-77 MINIMAP STUDENT PARTICIPATION (JUNE 1977)

School	Subject Area							Total
	English Only	Reading Only	Mathematics Only	Reading and Mathematics	English and Reading	Mathematics and English	English, Mathematics and Reading	
eveland	6	5	39	3	12	13	8	86
anklin	26	0	54	10	9	28	21	148
rfield	34	24	31	13	3	20	0	125
rcer	12	1	119	5	0	38	12	187
arples	17	9	51	7	18	8	9	119
uth Shore	0	1	118	10	0	0	4	133
tal (Public)	95	40	412	48	42	107	54	798
maculate Concep-ion (Non-Public)	0	0	12	0	1	0	0	13
and Total	95	40	424	48	43	107	54	811
rcent	12	5	52	6	5	13	7	100

Objective 2: "To enable at least seventy-five percent (75%) of the target students to attain minimum competency or better in one or more of the defined skills areas in which they have been found deficient."

Assessment

This objective could not be accurately assessed due to the fact that only sixty-seven percent of the public school target students who received remediation in their deficit skills areas had GST posttest scores. All of the non-public school target students had GST posttest scores. For the 185 students who received remediation in reading, only 116 (63%) GST Reading posttest scores were available; for the 632 students who received remedial service in mathematics, 448 (71%) GST Mathematics posttest scores were available, and for the 306 target students who received remediation in English, only 184 (60%) had posttest scores.

Of those tested, sixty-two percent of the students who received remediation in reading passed the Reading subtest; forty percent who received remedial service in mathematics passed the Mathematics subtest; and forty-three percent who received remediation in English passed the English subtest.

The objective was not met since only forty-four percent of all students (public and non-public) passed the GST posttest scores for the skills areas in which they received remedial service. It is impossible to estimate the number of students who would have passed the posttest, if it had been administered. However, the objective could not have been met even if all students not tested had passed the test.

Objective 3: "To determine which of seven methods for implementing the MinCAP materials is the most effective in improving target student skill levels."

Assessment

This objective could not be adequately assessed due to the fact that only thirty-four percent of the public school target students had complete GST pre- and post-test scores and the non-public school model could not be compared with the public school models.

Because of the small number of students (36%) with GST pre- and post-test scores on the Reading subtest, no conclusions could be drawn from the data. For students who received remediation in mathematics, an adequate number of GST pre- and post-test scores on the Mathematics subtest were available, except at Cleveland and Garfield, for analysis. Excluding Cleveland and Garfield, average Spring 1977 GST Mathematics subtest scores at each of the four schools were very similar to the overall target population average. After controlling for any initial differences between student achievement levels, it appeared that students at Franklin High School scored somewhat lower on the Spring test than was expected, given their pretest scores. The achievement levels of students at Mercer, Sharples, and South Shore were very similar.

It is difficult to determine what effect the different instructional methods had upon student achievement because of the inadequate number of students with GST pre- and post-test scores. In addition, a fair comparison was not possible between the schools because many changes in instructional methods were initiated throughout the school year. From the data that were available, it appeared that there was no significant difference in student achievement between the different instructional models.

Objective 4: "To train Title VII Project staff members and all regular school staff as selected by the principal in the use of criterion-referenced diagnostic material and criterion-referenced intervention strategies designed to determine individual student needs, as developed and field tested by the Seattle Public Schools Basic Skills Department."

Assessment

The objective was met. The following activities, as summarized below by the Supervising Teacher, were implemented for the training of Title VII Project staff and regular school staff as selected by the principal.

A MinCAP Staff Training Workshop was held in the Fall of 1976. The workshop consisted of two half-day sessions. The purpose of this workshop was to familiarize staff members with materials used in the Minimum Competencies Assurance Program.

During February and March of 1977, an In-Service Training Workshop was held for MinCAP staff. This workshop consisted of one all-day session and one evening session plus program visitations by each staff member. The purpose of this workshop was to review teaching strategies and materials and to provide staff with the opportunity to share and compare successes and problems.

Regular school staff training was an on-going activity in most of the MinCAP schools, although some schools were able to accomplish more than others, depending on individual school circumstances.

Garfield, Immaculate, Mercer and South Shore were successful in familiarizing the regular school staff with Minimum Competencies materials and methods. These schools worked closely with regular staff particularly through the Mathematics and English Departments.

Garfield scheduled two regular staff members to work full time in the MinCAP Basic Skills Center. Also, Garfield scheduled basic skills classes staffed by regular school staff in order to assist more students. The teachers of the basic skills classes shared curricular materials and methods with the MinCAP staff.

Immaculate developed an on-going interchange of curriculum with the regular math and English teachers. Curriculum sharing was also accomplished with the History Department.

The MinCAP Model at Mercer was characterized by a close relationship between the MinCAP staff and the regular school staff as the MinCAP staff were often working directly in the classrooms with the regular classroom teachers. Thus the regular staff had the opportunity to use all MinCAP materials and incorporate them into the regular curriculum.

South Shore held in-service meetings for regular school staff.

The MinCAP staff developed materials specifically designed to assist the regular classroom math teachers in the diagnosis and continuing remediation of Title VII students in the regular class. The South Shore Model required a close relationship between the MinCAP staff and regular classroom teachers, as the target students spent twenty-five minutes of their daily period in the MinCAP program and the other twenty-five minutes of the period in the regular classroom.

Conclusions

The MinCAP program provided service to 798 individual public school students and 13 non-public school students. The amount of service provided to public school target students increased to 1102 when students who received service in more than one subject area were double counted.

It was not possible to adequately assess program effectiveness on student achievement for Objectives 2 and 3 because of the limited number of GST scores in the student's deficit skills areas available for analysis. If the MinCAP program is funded in the future, it is recommended that the GST be administered to all target students on a pre- and post-test basis. Since many students move during the school year and cannot be posttested, it is essential that accurate data on exit reasons be maintained. This would make it possible to account for an outcome for each student in the program.

Required teacher training was provided to Title VII MinCAP staff and regular school staff selected by the principal.

ALPHA AND MENTOR PROJECTS

Program Description

The Alpha and Mentor Projects were an extension of the District's state-funded program to provide gifted and talented students new and unusual experiences, materials, and information not usually provided in the regular curriculum. The projects were designed to create opportunities for students to develop higher cognitive skills, motivation, self-awareness, and capacity for self-directed and self-initiated learning.

Alpha Project

The Alpha Project provided classroom instruction to students in Kindergarten through eighth grade in the following schools:

- Whitworth (Grades K through 6)
- Meany (Grades 7 and 8)
- Madrona (Grades 5 and 6)
- Sharples (Grades 7 and 8)

Staff for the Alpha Project were hired in January 1977 and the selection of target students was completed by the middle of February 1977. All Alpha target schools except Sharples began classes by the end of February and continued until the end of the 1977 school year. Because of space limitatons, Sharples did not begin classes until April 26, 1977.

Identification of gifted and talented students for the Alpha Project was based on a case study approach which utilized a multi-factor identification procedure. Initially, all students in target Alpha schools were considered eligible for the program. The student identification process was based on five criteria through which students could enter a preliminary pool:

- Teacher Nomination, through a questionnaire in which the staff nominated students who, in their judgment, exhibited outstanding learning ability, motivation, creativity, and leadership.
- Community Input, through another questionnaire which asked the parents of each student about their child's behavior and unique contributions at home and in the community.
- Psychometric Data, based on student achievement test scores. Students at the nintieth percentile or higher entered the preliminary pool.

- Peer Nomination, in which students of the same age group were given situational tasks that required the group to choose who would best be able to solve the tasks.

- Special Nomination, based on the recommendation of non-instructional staff members, who were given a list of all first pool candidates and asked to nominate children not in the first pool if they felt that other students warranted the attention of the selection committee.

A total score for each criteria was computed and comprised a talent profile for each student. A selection committee at each school constructed a composite score for each student by adding together the scores for each criterion area. Students with a total score above an established cut-off point were invited to participate in the Alpha Project.

The Alpha Project program staff included one teacher specialist and one instructional assistant at each school. An Alpha Lab was established at each school. Each target student received a three-hour block of instruction one day each week which was divided into three broad categories: (1) the Physical Science sequence, (2) the Life Science sequence, and (3) the Social Awareness sequence. Other subject areas, such as music and technical drawing, were also incorporated into the Alpha instructional classes.

The curriculum for the Alpha Project was developed from Bloom's Taxonomy, which is based on the concept that there are a series of learning steps learners use to achieve competence in the higher levels of learning (Analysis, Synthesis, and Evaluation). Each Alpha teacher specialist utilized published materials and/or developed and implemented instructional units based on these higher levels of learning. The instructional units varied in content, design, and duration and were developed to meet the individual needs of each group.

Mentor Project

The Mentor Project was involved in the following two public and three non-public high schools:

- Franklin (Grades 10 through 12)
- Garfield (Grades 9 through 12)
- O'Day (non-public)
- Immaculate (non-public)
- Holy Name (non-public)

Mentor Project public school staff were selected in January 1977 and selection of target students was completed by the middle of February 1977. All Mentor public school clases began by the end of February and continued until the end of the 1977 school year. Because program funding arrived late, money was available to add a non-public school Mentor Project component. Staff for the three non-public high schools were selected from March 14, 1977 to March 18, 1977. Student selection had previously been completed in February 1977 in anticipation of program funding. Mentor classes in the non-public schools began March 21, 1977 and continued until the end of the school year.

Selection of gifted and talented students for the public school Mentor Project was based on a simplified case study approach. Mentor students were nominated in one of two ways: each department head at each school nominated those students in their area who had demonstrated exceptional abilities in classwork or on a standardized test. Alternatively, students could enter the nomination pool by applying for specific Mentor classes by briefly outlining a project or a proposed area to study. A selection committee at each school evaluated all information and made the final selection of target students, based upon the students' interests and abilities. A similar selection process was utilized in the non-public schools. Students who were in the nomination pool and had a free period to attend the Mentor class were selected as target students.

The Mentor Project utilized classroom teachers as Mentor teachers. The Mentor teachers at each high school instructed and advised students in their specialty subject areas, either (1) social studies and English; (2) mathematics and life and physical sciences; (3) performing arts (music, dance, drama, and speech); (4) technological fields; (5) applied arts (painting, drawing, design, home economics, etc.); or (6) communications, which included languages other than English. The Mentor staff at Garfield High School included six teachers and the staff at Franklin included fourteen teachers.

Mentor teachers in the public high schools scheduled classes so that each Mentor student received instruction one hour a day, five days a week, in a Mentor class. All Mentor students in the non-public schools attended Mentor classes at Holy Name where students attended two and one-half hours a day, five days a week. All Mentor teachers focused student learning experience by teaching special units and encouraging student projects related to these units. For example, a Mentor teacher specializing in mathematics might have special units in topography, beginning calculus, computer science, etc. A student project stemming from these special units might be the design of a special game programmed on a computer. A Mentor teacher specializing in music might present special units in music theory or jazz. A student project stemming from these units might be the compositon of an original piece of music.

Program Objectives

Alpha Projects

1. A minimum of twenty (20) instructional units based on the highest levels of Bloom's Taxonomy will be developed and implemented by the end of the school year.

2. On the average, participating students will demonstrate a ten percent gain in increasing, enhancing, and/or improving cognitive growth as assessed by differentiated criteria, one for non-Whites, and one for Whites.

3. By the end of the school year, the selection process for identifying students in Alpha will be refined and improved. An instrument for identifying and defining gifted minority students will be developed.

4. Completion of the identification will be the final phase of the selection process.

5. Eighty percent (80%) of the participating students scoring below the mean level on a personality inventory will demonstrate a significant increase in positive awareness of self and one's potential by the end of the year.

6. A minimum of three meetings will be held with parents, students, and faculty during the course of the school year.

Mentor Projects

1. Each Mentor Project student will demonstrate the skills and abilities needed to earn an "A" or "B" college-equivalent grade on a major class project from an impartial college or university instructor with expertise in the project area.

2. Each Mentor Project student will participate regularly and constructively in seminar discussions and activities.

3. Each Mentor Project student will develop the research skills and independent study habits that are requisite to the accomplishment of Objectives 1 and 2 above.

Procedures

Description of Data Analysis

To describe service, student participation data in the Alpha and Mentor Projects were collected and tabulated from class lists which were entered on a computer file. Demographic information (sex, ethnic background and grade) from District records was tabulated to describe population characteristics. Instructional units based on Bloom's Taxonomy were listed and described for each Alpha school by the Alpha teachers.

To describe academic achievement of Alpha students, Metropolitan Achievement Test score data from District files were collected and added to each student's record. Gains for White and non-White target students were computed and compared to expected gains of other students in the District with similar pretest scores.

Alpha teachers were surveyed to determine if improvements in the Alpha selection process should be implemented. The survey results were then tabulated.

To describe student awareness of self, Personality Inventory (PI) scores were collected from Alpha program records and added to computer files. The PI was administered to Alpha target students in February 1977 and in May 1977. Student gains (posttest minus pretest) were calculated for all Alpha target students who scored below the mean level on the pretest. The statistical significance of gains was calculated by computing a formula utilizing the reliability coefficient of the PI.

Staff development and communication efforts to involve the community, parents and students were described by summarizing program records maintained by the Supervising Teacher.

Mentor target student academic progress and class attendance were described by the tabulation of Spring 1977 academic grades and Spring 1977 attendance records collected by the District.

Analysis of the data was conducted on the computer through the use of the Statistical Package for the Social Sciences (SPSS).

Description of Data Sources

The following measurement instruments and records were used in the collection of data contained in this report:

1. Fall 1976 and Spring 1977 Metropolitan Achievement Test (MAT) scores were collected for Alpha students in grades two, four, six, and eight. The tests were administered through the Group Testing Office.

2. Personality Inventory (PI) scores for Alpha students were collected from Alpha program records. The PI was locally developed for target students in the state-funded Alpha Project. The PI was administered by Alpha teachers in February 1977 and again in May 1977. The PI measures awareness of self and the environment.

3. Spring 1977 academic grades for target students in Mentor classes were obtained from grade records maintained by the District.

4. Attendance records for Mentor students for Spring 1977 were obtained from records maintained by the District.

5. Follow-up Ratings of the Selection Procedure for Alpha students were completed by Alpha teachers in May 1977. (See Appendix, p. 56.)

6. Class lists, part of a computer program to monitor program participation, were compiled in April and updated in June.

7. The Student Master File maintained by the Seattle School District was used to collect demographic information (sex, ethnic background, and grade) for each target student.

8. Descriptions of instructional units based on Bloom's Taxonomy were obtained from Alpha teachers.

9. Records of staff development and communication efforts with parents, students, and the community were collected from the Supervising Teacher's records.

Population and Sampling

The population of this study consisted of 622 students who participated in the Alpha and Mentor Projects. The distribution of target students by school and subject area is presented in Table 6. The public school Mentor Project served 194 students and the Alpha Project served 412 students. Overall, 606 students were served in the Seattle Public Schools. The non-public school Mentor Project served an additional sixteen students.

The ethnic and sex distribution of target students in public schools are presented in Table 7. More than half (59%) of the target students were minority compared to sixty-four percent minority student enrollment in target schools. Fifty-three percent of the target students were male.

The sample for evaluation consisted of all students for whom complete data were available. Approximately 334 (81%) complete MAT pre- and post-test scores for Alpha students were available. Of the seventy-eight Alpha students who scored below the mean level on the pretest of the PI, fifty-five (71%) had

TABLE 6

1976-77 SCHOOL YEAR DISTRIBUTION OF TARGET STUDENTS
BY SUBJECT AREA FOR ALPHA AND MENTOR STUDENTS (JUNE 1977)

School	Subject Area for Mentor Students							Alpha Class	Total
	Math	Science	Art	Foreign Language	Music	Language Arts	Social Studies		
Franklin	21	14	7	9	14	18	21	0	104
Garfield	18	13	44	0	9	0	0	0	84
Meany	0	0	0	0	0	0	0	112	112
Sharples	0	0	0	0	0	0	0	97	97
Madrona	0	0	0	0	0	0	0	98	98
Whitworth	0	0	0	0	0	0	0	101	101
Students Who Transferred to Other Schools During the Year	1	1	3	0	0	1	0	4	10
Non-Public Schools	4	3	6	0	3	0	0	0	16
Total	44	31	60	9	26	19	21	412	622
Percent	7	5	10	2	4	3	3	66	100

TABLE 7

1976-77 SCHOOL YEAR ETHNIC AND SEX DISTRIBUTION OF ALPHA/MENTOR STUDENTS (JUNE 1977)

School	Ethnic Group													Sex	
	White	Southeast Asian	Samoan	Vietnamese	Korean	Japanese	American Indian	Filipino	Hispanic White	Hispanic Black	Chinese	Black	Hispanic Indian	Male	Female
Franklin	27	2	0	0	0	18	0	4	5	2	21	20	1	53	47
Garfield	37	0	0	0	0	1	0	3	0	1	1	38	0	47	34
Meany	73	0	0	0	1	11	1	0	2	0	3	20	1	54	58
Sharples	23	1	1	0	0	9	0	4	1	5	13	39	1	48	49
Madrona	50	0	0	0	0	4	2	2	0	1	1	36	2	53	45
Whitworth	30	0	2	0	0	13	1	7	1	0	7	40	0	61	40
Students Who Transferred to Other Schools During the Year	4	0	0	1	0	0	0	1	1	0	0	2	0	3	6
Total*	244	3	3	1	1	56	4	21	10	9	46	195	5	319	279
Percent	40.8	0.5	0.5	0.2	0.2	9.3	0.7	3.5	1.7	1.5	7.7	32.6	0.8	53.0	47.0

*These data were not available for eight public school target students nor any non-public school target students.

complete pre- and post-test scores available for analysis. For the 194 target Mentor students, 185 (95%) had attendance and grade records available.

Limitations

1. The length of service was too short to assess program effects on student achievement.

2. Due to the short interval between pre- and post-testing, it was impossible to adequately assess the impact of the Alpha Project on student attitudes.

3. No attendance or grade records were available for non-public school target Mentor students.

4. It was not possible to compare the number of days Mentor students were absent from Mentor class with the number of school days absent.

Assessment of Objectives

Alpha Project

Objective 1: "A minimum of twenty (20) instructional units based on the highest levels of Bloom's Taxonomy will be developed and implemented by the end of the school year."

Assessment

The above objective was intended to be completed in a regular school year of thirty-six weeks. This would have allowed each Alpha teacher to develop and implement a minimum of .6 instructional units a week. This objective was modified and measured against the criterion of .6 instructional units for each week that target students attended Alpha classes. Whitworth, Madrona, and Meany conducted classes for approximately seventeen and one half weeks and Sharples conducted classes for approximately eight and one half weeks. From the criteria state above, Whitworth, Madrona, and Meany should have developed and implemented a minimum of 10.5 instructional units and Sharples should have developed and implemented a minimum of 5.1 instructional units.

The Alpha staff did develop and implement a number of specific educational units designed to develop self awareness and skills in expression, observation, comparisons, inter-relationships, spatial relationships, measurement, design, social awareness, logic, and general subject areas (math, language arts, and social studies). The duration of each educational unit varied from part of a session to up to four sessions.

Whitworth developed and implemented twenty-three units, Madrona twelve units, Meany sixteen units, and Sharples five units.

Alpha Project

Objective 2: "On the average, participating students will demonstrate a 10% gain in increasing, enhancing and/or improving cognitive growth as assessed by differentiated criteria, one for non-Whites, and one for Whites."

Assessment

This objective could not be meaningfully assessed as written due to the following reasons: (1) it is impossible for students with high pretest scores (i.e., at or above the nintieth percentile) to exhibit a ten percent increase in achievement test scores; (2) the length of program participation was too short to assess program effect on student achievement; (3) the objective was ambiguous; and (4) it was not possible to administer an appropriate instrument to assess cognitive growth based on differentiated criteria for Whites and non-Whites. For the reasons stated above, this objective was not assessed.

Although the MAT is not an appropriate test, MAT test score data were gathered as part of the District's testing program.

From an analysis of MAT scores, all target students maintained normal or higher growth than was expected, given their pretest scores. On the MAT Mathematics Concepts subtest, all students scored much higher than expected. No differences in academic growth were apparent between White and non-White target students.

Alpha Project

Objective 3: "By the end of the school year, the selection process for identifying students in Alpha will be refined and improved. An instrument for identifying and defining gifted minority students will be developed.

Assessment

To determine if there was a need to change the existing selection process, all Alpha teachers were asked to rate the effectiveness of the selection process at the end of the 1976-77 school year. For each target student, the Alpha teacher indicated whether the student should or should not be in the Alpha Project. The Alpha teachers indicated that 256 (86%) of the students should be in the project and that only one student should not be in the project. The Alpha teachers indicated that they were not certain if forty (13%) target students should be in the program. Overall, the data suggest that the Alpha teachers were satisfied with the process used to select target students.

To satisfy the first part of the objective, a need to improve the selection process had to exist. From the data presented above, no need was apparent; therefore, no changes were instituted. This part of the objective was not applicable.

The second part of the above objective was also not met. No instrument for defining gifted minority students was developed due to late program implementation.

Alpha Project

Objective 4: "Completion of the identification will be the final phase of the selection process."

Assessment

The intent of this objective was interpreted to mean that a complete talent profile be compiled for each student nominated to the Alpha Project. This objective was met in that a talent profile was completed for each student nominated.

Alpha Project

Objective 5: "Eighty percent (80%) of the participating students scoring below the mean level on a personality inventory will demonstrate a significant increase in positive awareness of self and one's potential by the end of the year."

Assessment

The Personality Inventory (PI) was to have been administered to Alpha students in Fall 1976 and again in Spring 1977 to allow an adequate interval between pre- and post-testing to assess significant gains. Unfortunately, students were not administered the pretest until March 1977 and were posttested in May 1977. There were only eight weeks of instruction between pre- and post-testing.

Of the students who scored below the mean level on the pretest of the PI, eighty percent exhibited positive gains and twenty-seven percent exhibited statistically significant gains. Thirteen percent showed no gain and seven percent showed negative gains.

It was impossible to meet the objective given the short interval between pre- and post-tests. The fact that students showed significant gains in that short period suggests that the Alpha Project does improve student awareness of self and one's potential.

Alpha Project

Objective 6: "A minimum of three meetings will be held with parents, students and faculty during the year."

Assessment

Each Alpha school hosted an orientation meeting for the parents of Alpha students to familiarize parents with program goals and curriculum. In addition, every Alpha and Mentor school conducted a student orientation meeting. Parent Advisory meetings were held once a month for six months and a status report was submitted at each of these meetings.

Orientation meetings designed to inform staff of program goals, objectives, and selection procedures were also held in January and February. High school staff members attended two additional staff meetings. Elementary, middle school and junior high school staff members attended a weekly Friday afternoon meeting which included a three-day curriculum workshop with the Pacific Science Center.

The objective was exceeded. The number of staff development sessions and communication efforts to involve the community, parents and students was exceptional, particularly given the short time span within which the Alpha/Mentor staff worked.

Mentor Project

Objective 1: "Each Mentor Project student will demonsrate the skills and abilities needed to earn an "A" or "B" college-equivalent grade on a major class project from an impartial college or university instructor with expertise in the project area."

Assessment

Due to the short duration of the project, it was not possible to arrange for college or university instructors to grade the class projects of Mentor students. Consequently, the assessment of this objective, as written, was not possible.

Although the objective could not be assessed, the final course grades of Mentor students in Mentor classes were collected. Mentor students were expected to perform at higher levels in the Mentor class; consequently teacher assessment of Mentor students was more stringent than their assessment of students in other classes.

A large majority of the Mentor students performed well in their Mentor classes. Of the 185 Mentor students for whom final grades were available, eighty-seven percent of the students received a final grade of Pass, "A" or "B", and thirteen percent received a final grade of "C" or below.

The objective, as written, is not realistic since it requires that all target students receive an "A" or "B". It would be more realistic to expect a certain percentage of target students to perform at an "A" or a "B" level. In addition, the use of grades as a measure of student performance is not reliable given that the grading system is arbitrary.

Mentor Project

Objective 2: "Each Mentor Project student will participate regularly and constructively in seminar discussions and activities."

Assessment

The assessment of this objective was based on Mentor class attendance records. No data were available to assess constructive participation in seminar discussions and activities other than course grades which were presented in Objective 1. Thus, this objective could not be adequately assessed.

Students who were absent eleven days or less (greater than 75% attendance) during the last quarter were considered to attend class regularly. The average number of days students were absent was 4.7 days at Garfield and 3.5 days at Franklin. Seventy-five (93%) of the students at Garfield and ninety-eight (94%) of the students at Franklin attended class regularly. Overall, 173 (94%) of the students attended class regularly.

Although some target students did not regularly attend the Mentor class, ninety-four percent of the students did attend class regularly. The criteria that each Mentor student will participate regularly and constructively in seminar discussion and activities is unrealistic. It would be more appropriate to require a certain percentage of the target students to participate regularly.

Mentor Project

Objective 3: "Each Mentor Project student will develop the research skills and independent study habits that are requisite to the accomplishment of Objectives 1 and 2."

Assessment

Given the short time frame the Mentor Project was in operation, it was not possible to develop an independent measure of the research skills and independent study habits Mentor students developed during program participation. The academic grade data presented in Objective 1 do suggest that eighty percent of the target students developed some research skills and independent study habits since these skills were needed in actual course work.

Again, to require each Mentor student to develop research skills and independent study habits is unrealistic.

Conclusions

The majority of Alpha and Mentor objectives were not fully met. There were two primary reasons: delays in program funding, and unrealistic criterion levels for the objectives.

Alpha Project

The number of instruction units developed and implemented in accordance with Bloom's Taxonomy was modified to account for the short duration of Alpha program instruction. Because the term "instructional units" was ambiguous, documentation of the data difficult, and no relevant program information was obtainable through counting the number of instructional units, it is recommended that this objective be deleted in the future.

Although Alpha target students maintained normal or higher growth than was expected on all MAT subtests and scored much higher than expected on the MAT Mathematics Concept subtest, it is impossible to assess the impact of the Alpha program on student achievement. The target students spent a large proportion of the school year without the benefit of the Alpha program, and MAT gains could not be completely attributed to the Alpha program. In the event of future funding, it is recommended that the assessment of achievement gains be modified to reflect a more realistic assessment of student gains, e.g., student achievement based on expected gains.

The data from the follow-up rating of Alpha students suggested that there was no apparent need to change the existing identification process. Due to time limitations, the Alpha staff did not develop an instrument for identifying and defining gifted minority students. It is recommended that this be completed in the event of future program funding, since this would be an important contribution in the identification of gifted minority students.

A talent profile was completed for each student nominated to the Alpha Project. It is recommended that the monitoring of this process be deleted in the evaluation design and placed in the procedures section.

Although most students exhibited positive gains on the Personality Inventory, it was impossible to assess the impact of the Alpha Project on student attitudes, given the short interval between pre- and post-testing.

The number of staff development activities and communication efforts to involve the community, parents, and students was exceptional. It is recommended that the assessment of these activities be deleted in the evaluation design and placed in the Activities section.

Mentor Project

A large majority of the Mentor students performed well in their Mentor classes (87%) and attended class regularly (94%), although each student did not earn an "A" or a "B" or attend class regularly. Because it is unrealistic to expect each Mentor student to earn an "A" or a "B" and participate regularly, it is recommended that the criterion levels for student achievement and participation be modified.

No data were available to measure the research skills and independent study habits of Mentor students.

GENERAL CONCLUSIONS

The effectiveness of the three ESAA Title VII programs evaluated and the scope of their evaluations were seriously diminished by late program funding and the lack in continuity of funding. A major achievement during the 1976-77 school year was the implementation of these programs and their evaluation procedures.

In spite of the short time period of program operation, the results of the evaluations were generally good. Students in BSIM and Alpha Project showed strong achievement gains. In addition, Alpha Project students showed increases in awareness of themselves and their potential on the Personality Inventory. It is recommended that these programs be continued and, if possible, more stable funding provided.

The MinCAP program did not show academic achievement gains. It is not clear why the MinCAP students did not exhibit better academic achievement. A possible explanation could be that the Minimum Competencies General Screening Test measured different skills than were taught in MinCAP classes. In any case, student achievement gains could not be demonstrated for most students.

It is therefore recommended that the 1977-78 MinCAP programs be evaluated to determine the value of the program over a full academic year before any final decisions are made on the form of the program or its continued funding.

The Mentor Program evaluation suffered not only from the short time frame, but also from poorly written objectives. It is further recommended that a comprehensive evaluation, focusing on student outcomes, be conducted prior to any final decisions regarding the form of the program or continued funding.

APPENDIX

TITLE VII BASIC SKILLS IMPACT MODEL STUDENT INFORMATION FORM

IMSI
(1-4)

School Name _____ Teacher Name _____ School Code ☐☐☐ (5-7)

Type or print legibly Student Name (Last Name first) one line per student. Leave space between 1st and last.	Student I. D. # (8-14)	Check List of Services Student Receives						Rate of Student Progress (Check 1) (21)			Rate Degree of Working Relationship with tchr (Check 1) (22)			(23) Does parent of student volunteer to help in classroom?		If you are aware of any non-academic factor that may severely affect student achievement (i.e. language, personal, illness, emotional) please state factor	Do not write in space (24-25)
		(15) Cross Age Tutor	(16) Community Tutors	(17) Parent Tutors	(18) Title I	(19) URRD-HRA	(20) ECHP	(1) None noticeable	(2) Some	(3) Satisfactory	(1) Minimal	(2) Adequate	(3) Very Satisfactory	yes (1)	no (2)		

52

IHTA
(1-4)

TITLE VII BASIC SKILLS IMPACT MODEL STUDENT TEST AND ATTENDANCE INFORMATION

School Name _____

Basic Skills Teacher's Name _____

School Code [ ][ ][ ]
(5 - 7)

Type or print legibly Student Name (last name first), one line per student. Leave one space between first and last name.	Student I.D. Number (8-14)	# of weeks student in program (15-16)	Student Attendance in Title VII Class (check 1) (17)			Student Time in Class Each Day (Check 1) (18)				Pre-testing IRI Instructional Grade Equivalent (19-21) (22-24) (25-27)			Pre-test Key-Math Grade Equiv. (28-30)	Post-test IRI (31-33) (34-36) (37-39)			Post-testing Key-Math Raw Score (40-42) Gr. Equiv. (43-45)
			Regular Attendance	Normal Absenteeism	Excessive Absenteeism	Usually in class full 25 minutes	Usually in class 15-20 minutes	Usually in class less than 15 min.		Oral Reading	Comprehension	Word Recognition		Oral Reading	Comprehension	Word Recognition	

TITLE VII BASIC SKILLS IMPACT MODEL PARENT HOME STUDY INFORMATION FORM

IMPH
(1-4)

School name_____ Name of Home Study Assistant_____

School Code [ ][ ][ ]
(5-7)

Type or print legibly student name whose parent works with student at home on activities, last name first, one line per student. Leave space between first and last name.	Student I.D. Number (8-14)	# of weeks parent partic-ipated (15-16)	Total # of hours parents worked with child (17-19)	PLEASE LEAVE BLANK AND ATTACH PARENTAL INTERVIEW FORMS								
				#1 (20)	#2 (21)	#2a (22)	#3 (23)	#3a (24)	#4 (25-26)	#5 (27)	#5a1 (28-29)	#5a2 (30)

29S2100

MCSI
(1-4)

STUDENT INFORMATION LIST
TITLE VII MinCAP

SCHOOL NAME_____ SCHOOL CODE / / / / TEACHER NAME_____
(5 - 7)

TYPE OR PRINT LEGIBLY STUDENT NAME (Last Name First) ALPHABETICALLY	STUDENT I.D. NO. (8-14)	Does Student Attend Class Regularly? (15)	Is Student Being Served in - * (16)		Do You Feel That This Student Needs Special Help Outside of the MinCAP Class, i.e., Special Educ. (17)	If Time With Each Student Varies, Est. No. of Hrs. With Each Student a Week** (18-19)	No. of Weeks Student is in Program (20-21)
			Regular Classrm.	Sm. Group or Indiv. Tutoring			

* Only for schools that have helping teacher model
**If time spent with each student does not vary, record time spent with all students in space below.

_____ DAYS PER WEEK (22) _____ MINUTES PER DAY (23-24)

Do students receive credit for MinCAP class?

_____ YES
_____ NO
(25)

AMSP
(1-4)

FOLLOW UP RATINGS BY ALPHA/MENTOR TEACHERS
OF THE EFFECTIVENESS OF SELECTION PROCEDURES

School Location _____ School Code ☐☐☐ (5-7) Teacher Name _____

Type or Print Legibly Student Name (Last Name First, Alphabetically)	Student I.D. Number (8-14)	(15) Check Only One (1) Definitely should be in program	(2) Not certain he/she should be in program	(3) Definitely shld not be in the program	TO BE FILLED OUT BY ALPHA/MENTOR TEACHERS ONLY PERSONALITY INVENTORY PRE TEST (16-17) Behavior	(18-19) Int. & School Status	(20-21) Anxiety	(22-23) Popularity	(24-25) Happiness & Sat.	(26-27) Home & Family Behav.	(28-30) Total Inventory Mean	POST TEST (31-32) Behavior	(33-34) Int. & School Status	(35-36) Anxiety	(37-38) Popularity	(39-40) Happiness & Sat.	(41-42) Home & Family Behav.	(43-45) Total Inventory Mean

295-2150

56

68

69